"Last September and October I took a rapid run on the continent up the Rhine,—Heidelberg, Baden Baden, Basle, Soleure, Bern, Interlaken, the Simmenthal, Vevay, Geneva, over the Jura to Dijon, Fontainebleau, Paris, and home. The season was late; flowers mostly over, and deciduous ferns killed down, so that on the Alps I did not gather *Woodsia alpina* as I wished. I found on the Jura in one spot my favourite *Aspl. fontanum*. In the Pine forests of the Alps and Jura, *Polystichum Lonchitis* grows in the most wonderful luxuriance; I have dried some fronds 22 inches long! Its appearance is quite beautiful; I dried a good deal and brought away some live roots. *Aspl. septentrionale* too abounded on the alpine rocks. I found *Helix obvoluta* at Heidelberg at the foot of the walls of the Castle amongst *grass*, and also at Thun in a wood. *Helix Pomatia* was very common and abundant everywhere."

Read also a Letter addressed to the Secretary by John Hogg, Esq., F.R.S., F.L.S. &c., dated "Stockton-on-Tees, December 27th, 1854," of which the following is an extract:—

"Since my return home, I have had an opportunity of learning more particularly respecting the large fish which was stranded last September in the Tees Bay; and I have now not the least doubt that it was a common Tunny, and that too of a large size. One of the fishermen who had seen the fish, on cutting it said—the flesh looked like highly salted bacon, *i. e.* red with salt or saltpetre. He described it in size as 'being pretty well on to 60 stone,' which at 8 lbs. to the stone (meat weight) would give 480 lbs. The only freshly killed Tunny I ever saw was at Palermo; it was a good-sized fish and was carried on the shoulders of two strong fishermen, the one walking a few feet before the other. Pennant describes in his 'Brit. Zool.' (edit. 1812), vol. iii. p. 362, one which was caught at Inverary in 1769, as weighing 460 lbs. This then would probably be somewhat less than the Tees fish; and this is further shown by the following fact—Pennant says the tail 'measured 2 feet 7 inches between tip and tip' of its crescent-form. I yesterday measured the tail of the Tees fish, which gave 2 ft. $8\frac{1}{4}$ inches from tip to tip, thus having $1\frac{1}{4}$ inch more in the width of the crescent-tail than Pennant's, and consequently most likely it was the larger of the two. The fisherman had well preserved the tail, and it presents a beautiful specimen of a crescent, and very perfect, each half corresponding in a very accurate manner with the other. It is covered with a thick, nearly black skin, and quite smooth. I counted the caudal rays, and at first I made nineteen on one side and eighteen on the other; but on re-counting them I am more satisfied that they are equal, *i. e.* eighteen on each side or in each half. Between them I noticed most distinctly 'a cartilaginous keel between the sides of the tail,' as described by Cuvier in his generic characters of his genus *Thynnus*. Moreover, the fisherman (who is a very sensible man and a good bird-stuffer) on being shown Mr. Yarrell's figure of the Common Tunny, immediately recognized it and pronounced it at once to be the same fish."

Read, in conclusion, an "Extract from a Memoir on the Origin and Development of Vessels in Monocotyledonous and Dicotyledonous Plants." By Dr. Francisco Freire Allemão of Rio de Janeiro.

Dr. Allemão states that in 1849 he commenced a series of microscopical observations on several points of vegetable anatomy, and in particular on the origin and development of vessels in the roots of plants. In 1851 he read before the Vellozian Society of Rio de Janeiro a memoir in which the most important facts observed by him were shortly stated, which memoir he revised and published in 1852, as the third of his "Botanical Exercises," in the 'Trabalhos da Sociedade Velloziana,' p. 101. In the following year he pursued his investigations into the growth of vessels in germinating seeds, and extended them to the next stage in the development both of dicotyledonous and monocotyledonous plants. This inquiry is not yet completed, but Dr. Allemão transmits the extract communicated by Mr. Miers, together with a portion of the illustrative drawings, with the view of ascertaining whether his observations are really, as he believes them to be, new to science, and whether they are sufficiently exact.

The drawings represent first, a young plant of *Sida carpinifolia*, but little developed, showing the epigeal cotyledons still enveloped in their seminal integuments. The caulicle (radicle) is linear and without ramification. Seen under the microscope the nervures of the cotyledons are found to be composed solely of tracheal vessels, two of which constituting the midrib are continuous with those of the caulicle, which are four in number, distinct, entire, straight, parallel, and equidistant, descending more than half the length of the caulicle, the lower portion of which does not yet exhibit any vessels, nor does its radicular bulb show any tendency to form roots. In a somewhat more developed stage, the nervures of the cotyledons have their tracheæ considerably increased; the gemmule is seen under the form of a cellular tumour without vessels; the four tracheæ of the stem descend parallel to each other as far as the radicular bulb, and thus constitute the medullary sheath; no rootlets are yet observable. A further stage of development exhibits the same plant after the formation of rootlets, and the development of one of the leaves of the gemmule. In this stage the cotyledons have acquired a larger number of nervures; the nervures of the primordial leaf consist only of tracheæ, two of which forming the midrib descend by the stem to meet the four cotyledonary tracheæ; in the stem or primary merithal (radicle of authors) these tracheæ are as yet solitary for two-thirds of the upper portion of their length, but in the lower third they are accompanied and invested externally by dotted ducts. At the limit between stem and root where the rootlets are given off, the tracheæ of the stem terminate, and we see the commencement of the dotted or ligneous vessels, which begin to ascend in bundles through the stem outside the tracheæ and to descend, unaccompanied by tracheæ, through the roots and their ramifications.

From his investigations Dr. Allemão infers, first, that the tracheæ,